

of the normal than is the electric pressure.

A lowering of electric pressure 25 per cent or 44 per cent means a saving of power of 44 per cent in the same proportion as far as power expended on the same is concerned.

Reasons for Bad Working of the Lamps.

The most obvious fault apparent to the expert observer is the use of an unusually large carbon. While it did not actually measure the diameter of the carbon rods, my familiarity with them enabled me to see that these rods were five-eighths of an inch in diameter. The standard size for arc lamps has been and still is seven-eighths and one-half inch. The object in using a five-eighths inch rod is to enable the user to run a single carbon lamp all night without trimming. The result is not satisfactory. The weights of the carbons are proportional to their cross sectional areas or the squares of their diameters. Hence a five-eighths inch carbon weighs at least fifty per cent more than a half inch carbon. This extra weight drags down the upper carbon against the pull of the regulating spring and thus shortens the arc, and the shortening of the arc reduces the electric pressure between the carbons. It is doubtful if a lamp constructed to burn a half inch carbon can be regulated to burn well with five-eighths inch carbons. In any event a five-eighths inch carbon is less efficient as a light giving device than a half inch carbon.

The heavy carbon is only a makeshift to avoid the use of double carbon lamps for all night lighting. The Brush Electric company advertises that "double carbon lamps afford the only reliable and efficient means for all night electric lighting. All other devices are crude, expensive and unsatisfactory." Heavy five-eighths inch carbons are certainly expensive and unsatisfactory to the taxpayer.

Since the Brush Electric company claims the exclusive right to use the double carbon lamp for all night lighting by the Grand Rapids Electric Light & Power company are not apparent, since their lighting is done by means of Brush apparatus. I append some measurements made on the Thompson-Houston street lamps in Ann Arbor last evening. I have frequently measured the current in this system and it is kept very near ten amperes.

Lamp No. 1, 46 to 51.5 volts; Lamp No. 2, 42 to 44 volts; Lamp No. 3, 39 to 43 volts; Lamp No. 4, 46 to 48 volts; Lamp No. 5, 40 to 43 volts; Lamp No. 6, 51 to 48 volts.

These lamps were taken at random. All those burning under 45 volts were giving a good light, but were "hissing." Those burning above 45 volts were burning with quiet arcs. Half inch carbons were used.

WORK OF THE COMMITTEES.

Various Matters Disposed of Last Evening.

At a meeting of council committees last night the matter of the improvement of Oakland avenue again came before the committee on streets. The last committee on streets reported against allowing the contract price for the work. It was finally paid, however, though the committee had reported that the work had not been done according to contract. A final estimate of about \$700 was held back. The committee decided last night to use the report made by the committee of the last council. The committee will recommend the paving of East Fulton street, from Spring street to the bridge, with cedar blocks on concrete foundation.

The committee on claims and accounts had before them a claim for damages from a woman who stated that her leg had been broken by a fall on a defective sidewalk.

The ways and means committee considered plans by which the city might realize something on the \$30,000 worth of claims on property which was bid in for special improvement taxes. The committee will recommend that the owners of the property be given reasonable notice of the city's intention and be allowed a chance to settle. If they do not settle the property will be sold to the highest bidder. The agent of a Birmingham, England, firm of iron street sign manufacturers submitted a sample of their work to the committee on streets. The city will require about 20,000 signs, and at the price made by the English firm, 40 cents apiece, it would cost some \$7,000 to supply the city. Alderman Ball, chairman of the committee, said that frequently there would be no place to put the signs, as the fences were becoming rarer and property owners would not allow them to be put on their houses. The cost of proper fixtures would almost double the expense of placing the signs.

Proof Enough.

Outer—Your boat is a fast sailer. Skipper (bared teeth)—You bet she's fast. She's because her bottom is smooth. She's smooth as a bottle. Just chuck up another sandbag or two, please; the wind is freshen and I can't leave the tiller. Gotta ter be a gale, I guess.

Outer—Have you examined the bottom lately. Skipper—Only last week. I was out with a party on we spoke, and I just tell you that there bottom was so smooth that one of us could hold onto it.—New York Weekly.

He Liked the Smell.

"Don't you love the smell of a good cigar?" inquired an Austin antipode of Vanderbilts of Gus de Smith.

"You bet I do," replied Gus, his face brightening with anticipation.

"Have you got ten cents about your person?" inquired the first speaker again.

"Ten what?" asked Gus.

"Well, you give me ten cents, and then with the money I have will purchase a prime cigar."

"But what will I get?" said Gus.

"Why, you'll get the smell,"—Texas Siftings.

The Six Intentions Were Good.

The painting marked No. 543, Footprints of the Ages, has not the name of the artist affixed to it, and the artist, "but in the broad and generous of the subject," a colonial group, as to speak of the artist in the past, reveals his own identity. In the "Footprints of the Ages" we recognize the elements of the ancient artist, Mr. Alphonse Brachet, etc.—Chicago Tribune.

A Good Try.

Even the kindest hearted of us sometimes say things that, without explanation, sound rather odd. It was one of the best women who said to her husband, "What a pity it is that none of our children are as good as you."

"What?" was the surprised query.

"Because if they were I could send them some of this nice jelly," was the complacent answer.—The Era.

OFF GOES THE HEAD

By the Use of the Deadly Guillotine of France.

IT HAS BEEN USED A CENTURY

It was invented by a Dr. Louis and Not the Man From Whom It Gets Its Name.

A very interesting centenary fell on April 20 last. Little was said about it and there was no public rejoicing. Yet the thing that might have been honored in some way was a creditable invention, although it has a discreditable history. It is the guillotine. On April 25, 1792, the Highwaysman Pelletier was executed on the Place de Greve, in Paris, and the humanitarian invention of Dr. Louis was put in use for the first time.

It is a common and natural impression that this instrument was designed by Dr. Guillotin, whose name it bears. But it is now pretty well established that that is not so. Dr. Louis, the permanent secretary of the academy of medicine, was the inventor of it. There was a general desire for a more merciful way of inflicting the death penalty. Dr. Louis was filled with this desire as much as anyone, and designed the first model of the guillotine after a rougher Italian contrivance. It was made by one Schmidt, manufacturer of musical instruments to Queen Marie Antoinette. Two years afterward the guillotine made from his model was used to cut off the heads of his royal patroness and her husband, Marie Antoinette was interested in the condition of prisoners and was also in favor of reforming the methods of capital punishment. Nobles were usually decapitated with the axe and common persons in various other ways.

Dr. Guillotin wrote a pamphlet urging the adoption of the invention of his friend, Dr. Louis. He was elected member of the national assembly in consequence of the attention he drew to himself through his advocacy of this instrument. It was at first called the *Louison or Louissette*, but the name of its warmest advocate was soon given to it. Dr. Guillotin always protested against the use of his name. He did not die by the guillotine, as has been frequently stated. He passed away in 1814 at a good old age.

It Replaced the Brutal Wheel.

At the time of the introduction and adoption of the guillotine the wheel was still used in some of the southern provinces. Twenty years before Danton had been broken on the wheel, with many horrible details of torture, for his attempt on the life of Louis XV. The invention was, therefore, entirely due to humane motives. The fact that noble persons were decapitated and others hanged by the neck was also repugnant to growing democratic sentiment.

During a debate on a law introduced by Dr. Guillotin, the Abbe Maury opposed decapitation on the ground that it would make the people familiar with the sight of blood and would have a degrading effect on them. Dr. Guillotin's law contained some very curious clauses. One was to the effect that the execution of a criminal should cast no discredit on the criminal's family, and another was that the executioner should not be shamed by society. This law was not passed at the time.

Pelletier, not the man who first demonstrated the value of the guillotine, but the editor of a royalist journal called *Les Actes des Apotres*, made Dr. Guillotin and his guillotine the subject of a song. This, the New York World thinks, is what probably fixed the unfortunate doctor's name on the instrument.

The Machine Worked Well.

On January 24 Dr. Pelletier was condemned to death by the provisional tribunal of Paris for robbery with violence in the streets. There was some uncertainty as to whether the new instrument should be used. Before the execution of Pelletier several experiments were made on dead bodies. The assembly finally ordered that he should die by the guillotine, and his execution took place April 25, 1792. The machine worked well. It was operated by Sanson, in whose family the office of executioner in Paris had been hereditary for many years. The people were in much horror-struck by this execution, according to many accounts, although some of them must have witnessed the brutalities inflicted on the victims of the wheel.

On July 27, 1792, there was a mishap with the guillotine. The wooden grooves had got out of shape and the knife failed to fall promptly. Afterward metal work was substituted, and from that time there has never been any bungling with the guillotine. Its history is one of entire and great success.

Within a few months of Pelletier's execution the guillotine began its work in assisting the political movements of the time. In August it was taken to the Place du Carrousel. In August of the executioner, Sanson, fell off the scaffold and was killed. On one occasion it was removed for one day to the Place de Greve for the execution of some emigrants and then back to the Place de la Revolution for that of two robbers. The Place de Greve was in the center of what is now the Place de la Concorde. It was there that Louis XVI and Marie Antoinette, Mme. Elizabeth and Mme. Roland and other famous persons were put to death. It is estimated by historians that between August 10, 1792, and the 9th "Thermidor," 1794, 40,000 persons were killed by the invention of the ingenious Dr. Louis.

The Face Blushed.

The execution of Charlotte Corday for the assassination of Marat gave rise to an interesting discussion. When the executioner held up her severed head he struck it with his fist, and hundreds of persons were willing to swear to the fact that the face blushed.

There is a story to the effect that Dr. Guillotin was put in prison for refusing to make a triple machine, but this is untrue. It does not appear that a triple machine was ever used. The single one worked quickly enough to cut off the heads of forty-five persons within twenty minutes.

Under the empire's restoration the guillotine continued its standing on the Place de Greve, and the sentence of death was regularly carried out. During Louis Philippe's reign the guillotine was transferred to the Barriere St. Jacques, and in that of Napoleon III to the Place de la Roquette, where it has remained to this day.

Sanson, the executioner during the reign of terror, sold the original guillotine to a man named Curtis for \$5,000, and he sold it again to his niece. That niece was Mme. Tussaud, who kept the wax-works show in London. The original guillotine is in the hands of her descendants, who carry on the business.

Pictures are printed here of the first

execution which took place by the means of the guillotine—that of Pelletier—and the last that of Lieutenant Anstey, for the murder of Baroness Dellar, which took place on the ninth of last month.

Two Women Commit Suicide.

LIMA, O., June 2.—Wednesday morning Mrs. Sarah Ward killed herself by taking laudanum on account of family trouble, and in the afternoon Mrs. Albert Great was found dead in her room, she having locked herself in and turned on the gas. Her action is attributed to the fact of her husband deserting her and taking their two children.

Coinage in May.

WASHINGTON, June 2.—The coinage of the mints during May aggregated \$3,889,900 pieces, valued at \$5,079,270. Of this amount \$4,115,900 were in gold pieces, \$916,170 in silver and \$47,300 in minor coins.

To Succeed Mills.

CAMERON, Tex., June 2.—The convention to nominate to the lower house a successor to Roger Q. Mills selected Lieut. Gov. George W. Pendleton on the 18th ballot.

For Congress.

EL PASO, Ill., June 2.—At the democratic convention of the Ninth congressional district Congressman H. W. Snow was named for reelection.

Acres of Forest Ablaze.

MAY'S LAKE, N. J., June 2.—A fierce forest fire has been raging in the timber between this place and Egg Harbor since Wednesday morning. It has already burned over several hundred acres of valuable timber land, and is still raging. The little hamlet of Cornstown is in danger of being destroyed.

Charged with Embezzlement.

BROOKLYN, June 2.—Matthew T. G. Connolly, clerk in the post office division of the customs service, who, it is claimed, was yesterday found to have embezzled \$6,000 of duties he had collected, has been arrested.

Sugar Bounty Claims Paid.

WASHINGTON, June 2.—The commission of internal revenue reports the payment to date of \$3,616 claims for sugar bounty, amounting to \$7,271,095, leaving unsettled 915 claims involving \$4,681.

Child Crushed to Death.

ST. LOUIS, June 2.—By the collapse of the front portion of a building at 1438 South Tenth street Wednesday night Henry Bell, aged 2, was crushed to death. A number of children playing near the place were buried under the ruins, but with the one exception all escaped with slight injuries.

Surgeons Elect National Officers.

BOERON, June 2.—At the session of the American Surgical association at Dr. Nicholas Senn, of Chicago, was elected president, and Dr. J. R. West, of Richmond, Ind., secretary.

Amidst the Rain-Storm.

COUNCIL BLUFFS, Ia., June 2.—The coroner has concluded his investigation in the shooting case which occurred here Monday morning in which "Jack" Wade, a hack driver, was killed and W. M. Jones was wounded. The verdict is that Jones killed Wade in self-defense.

FACTS BRIEFLY STATED.

Twenty of the largest wall-paper makers of the country formed a trust on Wednesday.

Democrats and people's party men have agreed to place a fusion ticket in the field in Kansas.

Eighty special correspondents left Washington Wednesday over the Pennsylvania en route to Minneapolis.

The Norwegian steamer Wergeland cleared from Chicago Wednesday for Christiansfjord, Norway, with a cargo of provisions.

Middle Morgan, the foremost woman writer on horses and cattle in the United States, died in St. Francis' hospital, Jersey City, on Wednesday.

Dr. Nicholas Senn, of Chicago, was on Wednesday elected president of the American Surgical association at Boston. The next convention will be held at Buffalo.

Prof. W. K. Hill and J. A. M. Zeigler, occupying respectively the chairs of natural science and mathematics and astronomy in the Carthage (Ill.) college, have resigned.

Capt. E. H. Randolph of the Prince of Wales' North Staffordshire regiment, committed suicide by jumping into the sea at Weymouth. He had become insane through overwork.

Sullivan and Corbett met in New York Wednesday and put up the second installment of the \$10,000 a side which they will fight for. Phil Dwyer was selected to be final stakeholder.

Mrs. Harrison's physician stated on Wednesday that she was not improving as rapidly as was anticipated; that while she is still suffering from nervous prostration there was nothing alarming in her condition.

Five persons concerned in the recent riots at Lodz have been banished to Siberia. Thirty Germans and twenty-five Austrians, suspected of being agitators, have been expelled from Russia without warning.

Arrangements have been perfected to put the Niles tool works at Hamilton, O., into the hands of a syndicate and to extend the works. The transaction involves the issue of \$1,000,000 worth of 4% per cent bonds.

An engine and six cars were derailed on the St. Paul & Duluth road Tuesday night near Sturgeon Lake, Wis. A brakeman named Powers was seriously injured. The chair made for the chairman of the Minneapolis convention at a cost of \$600 was demolished.

Pictures of Independence, Liberty and Carpenter halls were presented to the state of Kentucky Wednesday at Lexington by the city of Philadelphia with elaborate ceremonies. Gov. Brown and Congressman Breckinridge delivered addresses.

Herman Fleischig, aged 33, formerly of Dresden, Germany, later of Belleville, Ill., committed suicide at Pana, Ill., by letting a train run over him.

Gen. John Ulrich Heidler, commander in chief of the Catholic Knights of St. John of Ohio, died at Dayton, O., Sunday night. He was 60 years old.

The silver convention adjourned since die on Saturday after making arrangements to publish a paper at irregular intervals in the interest of free coinage.

Butt has been filed in the federal court to remove property, originally filed upon with a soldier's warrant, situated in the village of the city of St. Paul, and valued at \$14,000.00.



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by mail to any woman a beautifully illustrated book, containing over 90 pages of most important information about all forms of female complaints. No woman should live without a copy of

"Guide to Health and Etiquette,"

by Lydia E. Pinkham. Thousands of women have been benefited by Mrs. Pinkham's advice after all other medical treatment had failed. Send a two-cent stamp to cover postage and packing, when you write for the book. Address LYDIA E. PINKHAM MED. CO., LYNN, MASS.

New Chicago Arrangements via G. R. & I. Railroad.

Under new arrangements, taking effect May 15, a special Chicago train will leave Grand Rapids at 11:45 a. m., daily except Sunday, via G. R. & I. Railroad and Kalamazoo, running independent of other trains, and arrive in Chicago at 5:25 p. m., with parlor buffet car attached.

Night train with Wagner sleeping car will leave Grand Rapids same as now, at 11:05 p. m., daily, and arrive in Chicago at 7:55 a. m.

Special Grand Rapids train will leave Chicago at 11:15 p. m., daily, arrive in Grand Rapids at 5:15 a. m., Wagner sleeping car attached.

Through buffet parlor car will leave Chicago at 3:10 p. m., daily except Sunday, and arrive in Grand Rapids 8:35 p. m., same as now.

Ask for tickets via G. R. & I. and Kalamazoo.

Have No Equal.

ALLOCK'S POROUS PLASTERS have attained a world-wide reputation solely upon their superlative merits. They have many would-be rivals, but have never been equalled or even approached in curative properties and rapidity and safety of action. Their value has been attested by the highest medical authorities, as well as by unimpeachable testimonials from those who have used them, and they are recommended by the best external remedy for weak back, rheumatism, neuralgia, colds, coughs, sore throat, chest and stomach affections; kidney difficulties, weak muscles, strains, aches and pains of every description.

Why rent! Ten new cottages in First and Fifth wards, from \$850 to \$1350, on monthly payments. Apply to Charles W. Coit, No. 53 Pearl street.

Pension Vouchers Executed Free on June 4 at the office of F. I. Darling, No. 32 Old Houseman block. Office open until 8 p. m.

Order of GRANT ICE CO. Phone 238.

The remarkable growth which, till within two years, was brought about principally by one person telling another, is a monument to Garfield Tea's merits.

When Traveling.

Whether on pleasure bent, or business, take on every trip a bottle of Syrup of Figs, as it acts most pleasantly and effectively on the kidneys, liver and bowels, preventing fevers, headaches and other forms of sickness. For sale in 50 cents and \$1 bottles by all leading druggists.

Buckley's Arnica Salve.

The best salve in the world for cuts, bruises, sores, ulcers, salt rheum, fever sores, tetter, eczema, and rapidly and positively cures piles, or no pay required. It is guaranteed to give perfect satisfaction or money refunded. Price 25 cents per box. For sale by Peck Bros., druggists, corner Monroe and Division-sts.

It Should Be in Every House.

J. B. Wilson, 371 Clay-st., Sharpsburg, Pa., says he will not be without Dr. King's New Discovery for Consumption, Coughs and Colds, that it cured his wife who was threatened with pneumonia after an attack of "La Grippe," when various other remedies and several physicians had done her no good. Robert Barker, of Cookport, Pa., claims Dr. King's New Discovery has done him more good than anything he ever used for Lung trouble. Nothing like it. Try it. Trial bottles 10 cents at Peck Bros' drugstore. Large bottles, 50c and \$1.00.

Electric Bitters.

This remedy is becoming so well known and so popular as to need no special mention. All who have used Electric Bitters sing the same song of praise, "this medicine does not exist and it is guaranteed to do all that is claimed. Electric Bitters will cure all diseases of the Liver and Kidneys, will remove Pimples, Boils, Salt Rheum and other affections caused by impure blood. Will drive Malaria from the system and prevent as well as cure all Malaria fevers. For cure Headache, Constipation and Indigestion try Electric Bitters—Entire satisfaction guaranteed or money refunded—Price 50c and \$1.00 per bottle at Peck Bros' drugstore.

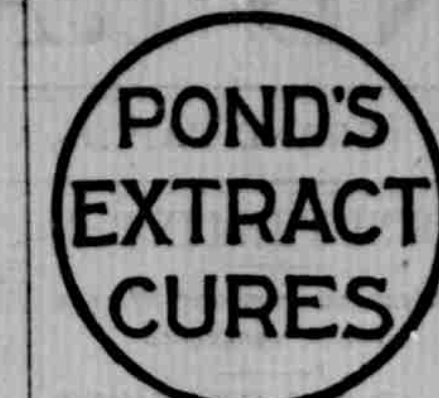
Big, hot, bad—

the old-fashioned pill. Bad to take, and bad to have. Dr. King's New Discovery, however, is good. It's only temporary relief you can get from it.

Try something better.

With Dr. King's Pleasant Pellets the benefit is lasting. They cleanse and regulate the liver, stomach and bowels. Taken in time, they prevent trouble. In any case, they cure it. And they cure it easily, they're mild and gentle, but thorough and effective. There's no disturbance to the system, diet or occupation. One tiny, sugar-coated Pellet for a headache, three for a catarrh, Sick and Bilious Headache, Constipation, Indigestion, Bilious Attacks, and all derangements of the liver, stomach and bowels are promptly removed and permanently cured.

They're purely vegetable, perfectly harmless, the smallest, and the easiest to take—but besides that, they're the cheapest pill you can buy for their benefits. Give them a fair trial, or your money is returned. You pay only for the good you get. This is true only of Dr. King's medicine.



Piles

Boils

Wounds

Bruises

Sunburn

Soreness

Sprains

Chafing

Sore Eyes

Sore Feet

Mosquito Bites

Hemorrhages

Inflammation

AVOID SUBSTITUTES

GENUINE MADE ONLY BY

POND'S EXTRACT CO., NEW YORK AND LONDON

KIRK'S DUSKY DIAMOND TAR SOAP

Healthful, Agreeable, Cleansing.

Chapped Hands, Wounds, Burns, Etc.

Removes and Prevents Dandruff.

AMERICAN FAMILY SOAP.

Best for General Household Use.

BE A MAN

APOLLO WAS A PERFECT MAN.

ERECT IN FORM!—BATTLE-PROOF IN WILL!—

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